The Safety and Effectiveness of Human Monoclonal Antibody, F105, in the Treatment of HIV

This study is completed.

Sponsored by

National Institute of Allergy and Infectious Diseases (NIAID)

Purpose

To determine the safety and pharmacokinetics of F105 human monoclonal antibody both following a single dose and during intermittent administration in HIV-infected patients. To determine specific dose concentrations sufficient to achieve efficacy and avoid toxicity. To determine the effect of F105 on virologic, immunologic, and serologic parameters. Early in the course of HIV infection, the primary humoral immune response appears to be highly strain specific and to be directed at a hypervariable portion of the viral gp120. The F105 human monoclonal antibody reacts with the CD4 binding region of gp120 and has been shown to neutralize the IIIB, SF2, and MN strains of HIV at concentrations readily achievable in humans.

Condition	Treatment or Intervention	Phase
HIV Infections	Drug: F105 Monoclonal Antibody (Human)	Phase I

MEDLINEplus related topics: AIDS

Study Type: Interventional
Study Design: Treatment

Official Title: A Phase I Clinical Trial to Study the Toxicity, Pharmacokinetics, and Efficacy of Human Monoclonal Antibody, F105, for Treating Human Immunodeficiency Virus Infection.

Further Study Details:

Early in the course of HIV infection, the primary humoral immune response appears to be highly strain specific and to be directed at a hypervariable portion of the viral gp120. The F105 human monoclonal antibody reacts with the CD4 binding region of gp120 and has been shown to neutralize the IIIB, SF2, and MN strains of HIV at concentrations readily achievable in humans.

In Part A, three cohorts of four patients each receive a single intravenous (IV) injection of F105 human monoclonal antibody at 1 of 3 doses. The IV catheter will remain in the patient's arm for 12 hours after injection for subsequent drawing of blood samples. The third group (highest dose) will be studied only after the first two groups are analyzed for pharmacokinetics. No more than two patients are enrolled per week. Patients on Part A undergo follow-up three to four times within the first week after injection and weekly thereafter for 7 weeks. Pharmacokinetic and toxicity data

generated from Part A will be used to select two dose levels for intermittent administration in Part B. In this part, cohorts of four to six patients receive one of two doses of F105 for 8-12 weeks. Per 9/30/94 amendment, eight patients receive one dose of F105 every 21 days for four doses (dose determined from analysis of Part A data).

Eligibility

Ages Eligible for Study: 18 Years and above , Genders Eligible for Study: Both

Criteria

Inclusion Criteria

Concurrent Medication: PART B ONLY. Allowed:

- Concomitant AZT or other antiretroviral drugs if patient is on a stable dose of such therapy within 3 months prior to study entry. Patients must have:
- Documented HIV-1 infection.
- CD4 count 200 - 500 cells/mm3 (Part A) or <= 400 cells/mm3 (Part B, per amendment).
- No diagnosis of AIDS (Part A only, per amendment).
- Life expectancy of at least 6 months. Part B patients only (per amendment):
- Primary (viral) isolates sensitive to F105 antibody using the yield reduction assay currently under development by ACTG, determined within 15-90 days prior to study entry.
- Plasma viremia by qualitative plasma culture.
- NO active opportunistic infection within 6 weeks prior to drawing of first isolate.
- NO AIDS-related malignancy other than minimal Kaposi's sarcoma. Prior Medication: Allowed:
- Prior AZT or other nucleoside antiviral agents.

Exclusion Criteria

Co-existing Condition: Patients with the following symptoms or conditions are excluded:

- Evidence of active renal disease as manifested by sediment containing red or white cell casts. Concurrent Treatment: Excluded:
- Red cell transfusions administered to maintain hemoglobin at acceptable level or alleviate symptoms of anemia. Prior Medication: Excluded within 6 weeks prior to study entry:
- Intravenous gamma globulin.
- Chemotherapy.
- Corticosteroids.
- Other experimental therapy.

EXCLUDED IN ALL PATIENTS:

- Immunosuppressive treatments, cytokine therapy, or biologic response modifiers not included in this study, including interferons or adjuvant treatment for chronic and severe fungal infections such as cryptococcal meningitis.

- Intravenous gamma globulin.
- Chemotherapy.
- Corticosteroids.
- Other experimental therapy.
- G-CSF, GM-CSF, or erythropoietin. EXCLUDED IN PART A ONLY: Drugs known to enhance or block metabolism of other drugs. EXCLUDED IN PART B ONLY: AZT or other antiretroviral drugs IF INITIATED during or within 1 month after completion of study. Active alcohol or drug abuse that may compromise ability to comply with study requirements.

Expected Total Enrollment: 8

Location and Contact Information

Massachusetts
Beth Israel Deaconess - West Campus, Boston, Massachusetts, 02215, United States

Study chairs or principal investigators

Samore MH, Study Chair

More Information

Click here for more information about F105 Monoclonal Antibody (Human)

Publications

Wolfe EJ, Cavacini LA, Samore MH, Posner MR, Kozial C, Spino C, Trapnell CB, Ketter N, Hammer S, Gambertoglio JG. Pharmacokinetics of F105, a human monoclonal antibody, in persons infected with human immunodeficiency virus type 1. Clin Pharmacol Ther. 1996 Jun;59(6):662-7.

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